C-A OPERATIONS PROCEDURES MANUAL


ATTACHMENT


4.120.22.f   AGS Chipmunk Tests


| C-A-OPM Procedures in which this Attachment is used. | | |
|---|---|---|
| 4.120.22 | | |
| | | |
| | | |


Hand Processed Changes

| HPC No. | Date | Page Nos. | Initials |
|---|---|---|---|
| | | | |
| | | | |
| | | | |


Approved:_____*Signature on File*_____   _____
Collider-Accelerator Department Chairman         Date


V. Castillo

**4.120.22.f  AGS Chipmunk Tests**

## PASS ANNUAL ACCEPTANCE TEST PROTOCOL

**Division A Software Filename and Checksum:  Title:**_____     **Checksum:** _____

**Division B Software Filename and Checksum:  Title:**_____     **Checksum:** _____

**Initial testing complete:**

**Test Team Leader's Name (Print):** _____     **Life Number:** _____

**Test Team Leader's Name (Sign):** _____     **Date:  _____/____/_____**

**Acceptance test procedure complete (following repairs and retesting if required):**

**Test Team Leader's Name (Print):** _____     **Life Number:**_____

**Test Team Leader's Name (Sign):** _____     **Date:  _____/____/_____**

**Test results reviewed by:**

**Safety Section Head's Name (Print):**_____     **Life Number:** _____

**Safety Section Head's Name (Sign):**_____     **Date:  _____/____/_____**

**Test results accepted by Radiation Safety Committee:**

**RSC Member's Name (Print):**_____     **Life Number:** _____

 **RSC Member's Name (Sign):**_____     **Date:  _____/____/_____**

**1.1**        **Test of Chipmunk NMO 46  located in 913 D Fan House**

| | | | |
|---|---|---|---|
| ☐ | **VERIFY** | Chipmunk calibration date [ _____/_____/_____ ] is | **VALID** |
| ☐ | **VERIFY** | Chipmunk is in good physical condition and is | **CHIRPING** |
| ☐ | **VERIFY** | **MCR** sees **Opto monitor** Chipmunk **NMO 46** | **O.K.** |

| | | | |
|---|---|---|---|
| | **DISCON** | **NMO 46** from **Security interface box** for **failsafe test** | |
| ☐ | **VERIFY** | **MCR** sees at **Opto monitor** NMO 46 | **IN'LOCK** |
| | **RESET** | **NMO 46 from MCR Opto monitor** | |
| ☐ | **VERIFY** | **MCR** sees NMO 46 | **OK** |

| | | | |
|---|---|---|---|
| | **PRESS** | **Trip button** on chipmunk NMO 46 | |
| ☐ | **VERIFY** | **MCR** sees at Opto monitor NMO 46 | **IN'LOCK** |
| | **RESET** | **NMO 46 from MCR Opto monitor** | |
| ☐ | **VERIFY** | **MCR** sees NMO 46 | **OK** |
| ☐ | **Check for acceptance of  Test Chipmunk NMO 46 located in 913 D Fan House** | | |


**1.2**        **Test of Chipmunk NMO 57  located in 913 C Fan House**

| | | | |
|---|---|---|---|
| ☐ | **VERIFY** | Chipmunk calibration date [ _____/_____/_____ ] is | **VALID** |
| ☐ | **VERIFY** | Chipmunk is in good physical condition and is | **CHIRPING** |
| ☐ | **VERIFY** | **MCR** sees **Opto monitor** Chipmunk **NMO 57** | **O.K.** |

| | | | |
|---|---|---|---|
| | **DISCON** | **NMO 57** from **Security interface box** for **failsafe test** | |
| ☐ | **VERIFY** | **MCR** sees at **Opto monitor** NMO 57 | **IN'LOCK** |
| | **RESET** | **NMO 57 from MCR Opto monitor** | |
| ☐ | **VERIFY** | **MCR** sees NMO 57 | **OK** |

| | | | |
|---|---|---|---|
| | **PRESS** | **Trip button** on chipmunk NMO 57 | |
| ☐ | **VERIFY** | **MCR** sees at Opto monitor NMO 57 | **IN'LOCK** |
| | **RESET** | **NMO 57 from MCR Opto monitor** | |
| ☐ | **VERIFY** | **MCR** sees NMO 57 | **OK** |
| ☐ | **Check for acceptance of  Test Chipmunk NMO 57 located in 913 C Fan House** | | |


**1.3**        **Test of Chipmunk NMO 56  located in 913 B Fan House**

| | | | |
|---|---|---|---|
| ☐ | **VERIFY** | Chipmunk calibration date [ _____/_____/_____ ] is | **VALID** |
| ☐ | **VERIFY** | Chipmunk is in good physical condition and is | **CHIRPING** |
| ☐ | **VERIFY** | **MCR** sees **Opto monitor** Chipmunk **NMO 56** | **O.K.** |

| | | | |
|---|---|---|---|
| | **DISCON** | **NMO 56** from **Security interface box** for **failsafe test** | |
| ☐ | **VERIFY** | **MCR** sees at **Opto monitor** NMO 56 | **IN'LOCK** |
| | **RESET** | **NMO 56 from MCR Opto monitor** | |
| ☐ | **VERIFY** | **MCR** sees NMO 56 | **OK** |

| | | | |
|---|---|---|---|
| | **PRESS** | **Trip button** on chipmunk NMO 56 | |
| ☐ | **VERIFY** | **MCR** sees at Opto monitor NMO 56 | **IN'LOCK** |
| | **RESET** | **NMO 56 from MCR Opto monitor** | |
| ☐ | **VERIFY** | **MCR** sees NMO 56 | **OK** |
| ☐ | **Check for acceptance of  Test Chipmunk NMO 56 located in 913 B Fan House** | | |

**1.4**         **Test of Chipmunk NMO 54  located on Siemens Rd West**

    ☐   **VERIFY**        Chipmunk calibration date [ _____/_____/_____ ]  is        **VALID**
    ☐   **VERIFY**        Chipmunk is in good physical condition and is        **CHIRPING**
    ☐   **VERIFY**        **MCR** sees **Opto monitor** Chipmunk **NMO 54**        **O.K.**

       **DISCON**        **NMO 54** from **Security interface box** for **failsafe test**
    ☐   **VERIFY**        **MCR** sees at **Opto monitor** NMO 54        **IN'LOCK**
       **RESET**        **NMO 54 from MCR Opto monitor**
    ☐   **VERIFY**        **MCR** sees NMO 54        **OK**

       **PRESS**        **Trip button** on chipmunk NMO 54
    ☐   **VERIFY**        **MCR** sees at Opto monitor NMO 54        **IN'LOCK**
       **RESET**        **NMO 54 from MCR Opto monitor**
    ☐   **VERIFY**        **MCR** sees NMO 54        **OK**
   ☐   **Check for acceptance of  Test Chipmunk NMO 54 located on Siemens Rd West**


**1.5**         **Test of Chipmunk NMO 55  located on Siemens Rd East**

    ☐   **VERIFY**        Chipmunk calibration date [ _____/_____/_____ ]  is        **VALID**
    ☐   **VERIFY**        Chipmunk is in good physical condition and is        **CHIRPING**
    ☐   **VERIFY**        **MCR** sees **Opto monitor** Chipmunk **NMO 55**        **O.K.**

       **DISCON**        **NMO 55** from **Security interface box** for **failsafe test**
    ☐   **VERIFY**        **MCR** sees at **Opto monitor** NMO 55        **IN'LOCK**
       **RESET**        **NMO 55 from MCR Opto monitor**
    ☐   **VERIFY**        **MCR** sees NMO 55        **OK**

       **PRESS**        **Trip button** on chipmunk NMO 55
    ☐   **VERIFY**        **MCR** sees at Opto monitor NMO 55        **IN'LOCK**
       **RESET**        **NMO 55 from MCR Opto monitor**
    ☐   **VERIFY**        **MCR** sees NMO 55        **OK**
   ☐   **Check for acceptance of  Test Chipmunk NMO 55 located on Siemens Rd East**


**1.6**         **Test of Chipmunk NMO 51  located at FEB Gate 2 East**

    ☐   **VERIFY**        Chipmunk calibration date [ _____/_____/_____ ]  is        **VALID**
    ☐   **VERIFY**        Chipmunk is in good physical condition and is        **CHIRPING**
    ☐   **VERIFY**        **MCR** sees **Opto monitor** Chipmunk **NMO 51**        **O.K.**

       **DISCON**        **NMO 51** from **Security interface box** for **failsafe test**
    ☐   **VERIFY**        **MCR** sees at **Opto monitor** NMO 51        **IN'LOCK**
       **RESET**        **NMO 51 from MCR Opto monitor**
    ☐   **VERIFY**        **MCR** sees NMO 51        **OK**

       **PRESS**        **Trip button** on chipmunk NMO 51
    ☐   **VERIFY**        **MCR** sees at Opto monitor NMO 51        **IN'LOCK**
       **RESET**        **NMO 51 from MCR Opto monitor**
    ☐   **VERIFY**        **MCR** sees NMO 51        **OK**
   ☐   **Check for acceptance of  Test Chipmunk NMO 51 located at FEB Gate 2 East**

**1.7**     **Test of Chipmunk NMO 78  located at FEB Gate 2 West**

☐ **VERIFY**     Chipmunk calibration date [ _____/_____/_____ ] is     **VALID**
☐ **VERIFY**     Chipmunk is in good physical condition and is     **CHIRPING**
☐ **VERIFY**     **MCR** sees **Opto monitor** Chipmunk **NMO 78**     **O.K.**

    **DISCON**     **NMO 78** from **Security interface box** for **failsafe test**
☐ **VERIFY**     **MCR** sees at **Opto monitor** NMO 78     **IN'LOCK**
    **RESET**     **NMO 78 from MCR Opto monitor**
☐ **VERIFY**     **MCR** sees NMO 78     **OK**

    **PRESS**     **Trip button** on chipmunk NMO 78
☐ **VERIFY**     **MCR** sees at Opto monitor NMO 78     **IN'LOCK**
    **RESET**     **NMO 78 from MCR Opto monitor**
☐ **VERIFY**     **MCR** sees NMO 78     **OK**

☐ **Check for acceptance of  Test Chipmunk NMO 78 located FEB Gate 2 West**


**1.8**     **Test of Chipmunk NMO 22  located at North Shield Door**

☐ **VERIFY**     Chipmunk calibration date [ _____/_____/_____ ] is     **VALID**
☐ **VERIFY**     Chipmunk is in good physical condition and is     **CHIRPING**
☐ **VERIFY**     **MCR** sees **Opto monitor** Chipmunk **NMO 22**     **O.K.**

    **DISCON**     **NMO 22** from **Security interface box** for **failsafe test**
☐ **VERIFY**     **MCR** sees at **Opto monitor** NMO 22     **IN'LOCK**
    **RESET**     **NMO 22 from MCR Opto monitor**
☐ **VERIFY**     **MCR** sees NMO 22     **OK**

    **PRESS**     **Trip button** on chipmunk NMO 22
☐ **VERIFY**     **MCR** sees at Opto monitor NMO 22     **IN'LOCK**
    **RESET**     **NMO 22 from MCR Opto monitor**
☐ **VERIFY**     **MCR** sees NMO 22     **OK**
☐ **Check for acceptance of  Test Chipmunk NMO 22 located at North Shield Door**


**1.9**     **Test of Chipmunk NMO 24  located in D Line West Shield Top**

☐ **VERIFY**     Chipmunk calibration date [ _____/_____/_____ ] is     **VALID**
☐ **VERIFY**     Chipmunk is in good physical condition and is     **CHIRPING**
☐ **VERIFY**     **MCR** sees **Opto monitor** Chipmunk **NMO 24**     **O.K.**

    **DISCON**     **NMO 24** from **Security interface box** for **failsafe test**
☐ **VERIFY**     **MCR** sees at **Opto monitor** NMO 24     **IN'LOCK**
    **RESET**     **NMO 24 from MCR Opto monitor**
☐ **VERIFY**     **MCR** sees NMO 24     **OK**

    **PRESS**     **Trip button** on chipmunk NMO 24
☐ **VERIFY**     **MCR** sees at Opto monitor NMO 24     **IN'LOCK**
    **RESET**     **NMO 24 from MCR Opto monitor**
☐ **VERIFY**     **MCR** sees NMO 24     **OK**
☐ **Check for acceptance of  Test Chipmunk NMO 24 located in D Line West Shield Top**

**1.10**     **Test of Chipmunk NMO 48  located at South Shield Door**

☐ **VERIFY**     Chipmunk calibration date [ _____/_____/_____ ] is     **VALID**
☐ **VERIFY**     Chipmunk is in good physical condition and is     **CHIRPING**
☐ **VERIFY**     **MCR** sees **Opto monitor** Chipmunk **NMO 48**     **O.K.**

    **DISCON**     **NMO 48** from **Security interface box** for **failsafe test**
☐ **VERIFY**     **MCR** sees at **Opto monitor** NMO 48     **IN'LOCK**
    **RESET**     **NMO 48 from MCR Opto monitor**
☐ **VERIFY**     **MCR** sees NMO 48     **OK**

    **PRESS**     **Trip button** on chipmunk NMO 48
☐ **VERIFY**     **MCR** sees at Opto monitor NMO 48     **IN'LOCK**
    **RESET**     **NMO 48 from MCR Opto monitor**
☐ **VERIFY**     **MCR** sees NMO 48     **OK**

    ☐ **Check for acceptance of  Test Chipmunk NMO 48 located at South Shield Door**


**1.11**     **Test of Chipmunk NMO 31  located in South Wiring Tunnel**

☐ **VERIFY**     Chipmunk calibration date [ _____/_____/_____ ] is     **VALID**
☐ **VERIFY**     Chipmunk is in good physical condition and is     **CHIRPING**
☐ **VERIFY**     **MCR** sees **Opto monitor** Chipmunk **NMO 31**     **O.K.**

    **DISCON**     **NMO 31** from **Security interface box** for **failsafe test**
☐ **VERIFY**     **MCR** sees at **Opto monitor** NMO 31     **IN'LOCK**
    **RESET**     **NMO 31 from MCR Opto monitor**
☐ **VERIFY**     **MCR** sees NMO 31     **OK**

    **PRESS**     **Trip button** on chipmunk NMO 31
☐ **VERIFY**     **MCR** sees at Opto monitor NMO 31     **IN'LOCK**
    **RESET**     **NMO 31 from MCR Opto monitor**
☐ **VERIFY**     **MCR** sees NMO 31     **OK**

    ☐ **Check for acceptance of  Test Chipmunk NMO 31 located in South Wiring Tunnel**

**1.12**  **Test of Chipmunk NMO 19  located in Target Building East**

☐ **VERIFY**    Chipmunk calibration date [ _____/_____/_____ ] is                **VALID**
☐ **VERIFY**    Chipmunk is in good physical condition and is                      **CHIRPING**
☐ **VERIFY**    **MCR** sees **Opto monitor** Chipmunk **NMO 19**                  **O.K.**

   **DISCON**    **NMO 19** from **Security interface box** for **failsafe test**
☐ **VERIFY**    **MCR** sees at **Opto monitor** NMO 19                            **IN'LOCK**
   **RESET**     **NMO 19 from MCR Opto monitor**
☐ **VERIFY**    **MCR** sees NMO 19                                                **OK**

   **PRESS**     **Trip button** on chipmunk NMO 19
☐ **VERIFY**    **MCR** sees at Opto monitor NMO 19                                **IN'LOCK**
   **RESET**     **NMO 19 from MCR Opto monitor**
☐ **VERIFY**    **MCR** sees NMO 19                                                **OK**

☐ **Check for acceptance of  Test Chipmunk NMO 19 located in Target Building East**


**1.13**  **Test of Chipmunk NMO 49  located at North Conjunction Gate**

☐ **VERIFY**    Chipmunk calibration date [ _____/_____/_____ ] is                **VALID**
☐ **VERIFY**    Chipmunk is in good physical condition and is                      **CHIRPING**
☐ **VERIFY**    **MCR** sees **Opto monitor** Chipmunk **NMO 49**                  **O.K.**

   **DISCON**    **NMO 49** from **Security interface box** for **failsafe test**
☐ **VERIFY**    **MCR** sees at **Opto monitor** NMO 49                            **IN'LOCK**
   **RESET**     **NMO 49 from MCR Opto monitor**
☐ **VERIFY**    **MCR** sees NMO 49                                                **OK**

   **PRESS**     **Trip button** on chipmunk NMO 49
☐ **VERIFY**    **MCR** sees at Opto monitor NMO 49                                **IN'LOCK**
   **RESET**     **NMO 49 from MCR Opto monitor**
☐ **VERIFY**    **MCR** sees NMO 49                                                **OK**
☐ **Check for acceptance of  Test Chipmunk NMO 49 located at North Conjunction Gate**


**1.14**  **Test of Chipmunk NMO 77  located outside North Conjunction Gate**

☐ **VERIFY**    Chipmunk calibration date [ _____/_____/_____ ] is                **VALID**
☐ **VERIFY**    Chipmunk is in good physical condition and is                      **CHIRPING**
☐ **VERIFY**    **MCR** sees **Opto monitor** Chipmunk **NMO 77**                  **O.K.**

   **DISCON**    **NMO 77** from **Security interface box** for **failsafe test**
☐ **VERIFY**    **MCR** sees at **Opto monitor** NMO 77                            **IN'LOCK**
   **RESET**     **NMO 77 from MCR Opto monitor**
☐ **VERIFY**    **MCR** sees NMO 77                                                **OK**

   **PRESS**     **Trip button** on chipmunk NMO 77
☐ **VERIFY**    **MCR** sees at Opto monitor NMO 77                                **IN'LOCK**
   **RESET**     **NMO 77 from MCR Opto monitor**
☐ **VERIFY**    **MCR** sees NMO 77                                                **OK**
☐ **Check for acceptance of  Test Chipmunk NMO 77 located outside North Conjunction Gate**

**END OF TEST PROCEDURE**


**TTL: Sign for completion of initial testing:** _____


**Date: \_\_\_\_\_/\_\_\_\_/_____**


**TTL: Sign for completion of final testing:** _____


**Date: \_\_\_\_\_/\_\_\_\_\_/_____**